

**List of Claims:**

**Claim 1 (currently amended):** An apparatus for interfacing customer premise equipment with a telephone network, the apparatus comprising:

an interface within the customer premise equipment that is coupled to the telephone network, the interface comprising a current source, wherein the current source provides a constant current, ~~drawn from the telephone network~~, to the customer premise equipment when a line impedance of the telephone network varies in a predetermined range when the customer premise equipment is off-hook; and

a tip conductor and a ring conductor, both the tip conductor and the ring conductors are coupled to the interface.

**Claim 2 (original):** The apparatus of claim 1, wherein the line impedance of the telephone network is defined by an EWTIA-496-A interface standard.

**Claim 3 (original):** The apparatus of claim 1, wherein the telephone network is a Plain Old Telephone System (POTS) network.

**Claim 4 (original):** The apparatus of claim 1, wherein the current source includes a FET.

**Claim 5 (original):** The apparatus of claim 1, wherein the constant current is approximately 30mA.

**Claim 6 (original):** The apparatus of claim 1, wherein the telephone network is a PBX system.

**Claim 7 (original):** The apparatus of claim 1, further comprising an off-hook relay.

**Claim 8 (original):** The apparatus of claim 1, wherein the current source includes a low pass filter.

**Claim 9 (currently amended):** An apparatus at a customer premise that is coupled to a telephone network, the apparatus comprising:

a receiver;

an interface coupled to the receiver and the telephone network, wherein the interface comprises a current source, wherein the current source provides a constant current, ~~drawn from the telephone network,~~ to the receiver when a line impedance of the telephone network varies in a predetermining range when the customer premise equipment is off-hook; and

a tip conductor and a ring conductor; both the tip conductor and the ring conductor are coupled to the interface.

**Claim 10 (original):** The apparatus of claim 9, wherein the current source includes a FET.

**Claim 11 (original):** The apparatus of claim 9, wherein the telephone network is a Plain Old Telephone Service network.

**Claim 12 (original):** The apparatus of claim 9, wherein the line impedance of the telephone network is defined by an EWTIA-496-A interface standard.

**Claim 13 (original):** The apparatus of claim 9, further comprising a coder/decoder.

**Claim 14 (original):** The apparatus of claim 9, wherein the receiver is a hybrid receiver.

**Claim 15 (original):** The apparatus of claim 9, wherein the telephone network is a PBX system.

**Claim 16 (original):** The apparatus of claim 9, wherein the constant current is approximately 30mA.

**Claim 17 (currently amended):** A method of providing a constant current to an apparatus coupled to a telephone network, the method comprising the steps of:

- connecting the apparatus at the customer premise to a tip conductor and a ring conductor;
- taking the apparatus off-hook; and
- sinking a constant DC bias current, ~~drawn from the telephone network~~, while off-hook,

where the DC bias current is independent of a load on the tip conductor and the ring conductor.

**Claim 18 (original):** The method of claim 17, wherein the telephone network is a Plain Old Telephone Service (POTS) network.

**Claim 19 (original):** The method of claim 17, wherein the telephone network is a PBX System.

**Claim 20 (original):** The method of claim 17, wherein the DC bias current is approximately 30mA.

**Claim 21 (currently amended):** ~~The apparatus of claim 1, wherein the current source includes~~ An apparatus for interfacing customer premise equipment with a telephone network, the apparatus comprising:

an interface within the customer premise equipment that is coupled to the telephone network, the interface comprising a current source, wherein the current source provides a constant current to the customer premise equipment when a line impedance of the telephone network varies in a predetermined range when the customer premise equipment is off-hook;

a tip conductor and a ring conductor, both the tip conductor and the ring conductors are coupled to the interface;

a driver having a non-inverting input, an inverting input and an output;

a divider for dividing a first voltage and providing a second voltage to the non-inverting input; and

wherein the driver ~~derives~~ drives the output , such that the inverting input is at substantially the second voltage.

**Claim 22 (currently amended):** ~~The apparatus of claim 9, wherein the current source includes~~ An apparatus at a customer premise that is coupled to a telephone network, the apparatus comprising:

a receiver;

an interface coupled to the receiver and the telephone network, wherein the interface comprises a current source, wherein the current source provides a constant current to the receiver when a line impedance of the telephone network varies in a predetermining range when the customer premise equipment is off-hook;

a tip conductor and a ring conductor; both the tip conductor and the ring conductor are coupled to the interface;

a driver having a non-inverting input, an inverting input and an output;

a divider for dividing a first voltage and providing a second voltage to the non-inverting input; and

wherein the driver ~~derives~~ drives the output , such that the inverting input is at substantially the second voltage.

**Claim 23 (new):** The apparatus of claim 21, wherein the line impedance of the telephone network is defined by an EWTIA-496-A interface standard.

**Claim 24 (new):** The apparatus of claim 21, wherein the telephone network is a Plain Old Telephone System (POTS) network.

**Claim 25 (new):** The apparatus of claim 21, wherein the current source includes a FET.

**Claim 26 (new):** The apparatus of claim 21, wherein the constant current is approximately 30mA.

**Claim 27 (new):** The apparatus of claim 21, wherein the telephone network is a PBX system.

**Claim 28 (new):** The apparatus of claim 21, further comprising an off-hook relay.

**Claim 29 (new):** The apparatus of claim 21, wherein the current source includes a low pass filter.

**Claim 30 (new):** The apparatus of claim 21 further comprising a reference diode coupled to the driver via the divider, wherein the reference diode provides the first voltage to the divider.

**Claim 31 (new):** The apparatus of claim 21, wherein the divider includes a first resistor and a second resistor.

**Claim 32 (new):** The apparatus of claim 21 further comprising a transistor, wherein the driver drives the transistor.

**Claim 33 (new):** The apparatus of claim 32 further comprising a resistor connected to the transistor, wherein the second voltage is held across the resistor.

**Claim 34 (new):** The apparatus of claim 22, wherein the current source includes a FET.

**Claim 35 (new):** The apparatus of claim 22, wherein the telephone network is a Plain Old Telephone Service network.

**Claim 36 (new):** The apparatus of claim 22, wherein the line impedance of the telephone network is defined by an EWTIA-496-A interface standard.

**Claim 37 (new):** The apparatus of claim 22, further comprising a coder/decoder.

**Claim 38 (new):** The apparatus of claim 22, wherein the receiver is a hybrid receiver.

**Claim 39 (new):** The apparatus of claim 22, wherein the telephone network is a PBX system.

**Claim 40 (new):** The apparatus of claim 22, wherein the constant current is approximately 30mA.

**Claim 41 (new):** The apparatus of claim 22 further comprising a reference diode coupled to the driver via the divider, wherein the reference diode provides the first voltage to the divider.

**Claim 42 (new):** The apparatus of claim 22, wherein the divider includes a first resistor and a second resistor.

**Claim 43 (new):** The apparatus of claim 22 further comprising a transistor, wherein the driver drives the transistor.

**Claim 44 (new):** The apparatus of claim 43 further comprising a resistor connected to the transistor, wherein the second voltage is held across the resistor.

**Claim 45 (new):** A method of providing a constant current to an apparatus coupled to a telephone network, the method comprising:

connecting the apparatus at the customer premise to a tip conductor and a ring conductor;

taking the apparatus off-hook;

sinking a constant DC bias current while off-hook, where the DC bias current is independent of a load on the tip conductor and the ring conductor;

dividing a first voltage to generate a second voltage;  
providing the second voltage to a non-inverting input of a driver; and  
driving the output of the driver, such that an inverting input of the driver is at  
substantially the second voltage.

**Claim 46 (new):** The method of claim 45, wherein the telephone network is a Plain Old Telephone Service (POTS) network.

**Claim 47 (new):** The method of claim 45, wherein the telephone network is a PBX System.

**Claim 48 (new):** The method of claim 45, wherein the DC bias current is approximately 30mA.

**Claim 49 (new):** The apparatus of claim 1, wherein the constant current is drawn from the telephone network.

**Claim 50 (new):** The apparatus of claim 9, wherein the constant current is drawn from the telephone network.

**Claim 51 (new):** The method of claim 17 further comprising: drawing the constant current is drawn from the telephone network.

**Claim 52 (new):** The apparatus of claim 21, wherein the constant current is drawn from the telephone network.

**Claim 53 (new):** The apparatus of claim 22, wherein the constant current is drawn from the telephone network.

**Claim 54 (new):** The method of claim 45 further comprising: drawing the constant current is drawn from the telephone network.